

Microwave implant for satellites

One of the most successful high-tech companies in Ontario makes a product that few people have ever heard about, makes it better than anyone else — and holds a near monopoly on it.

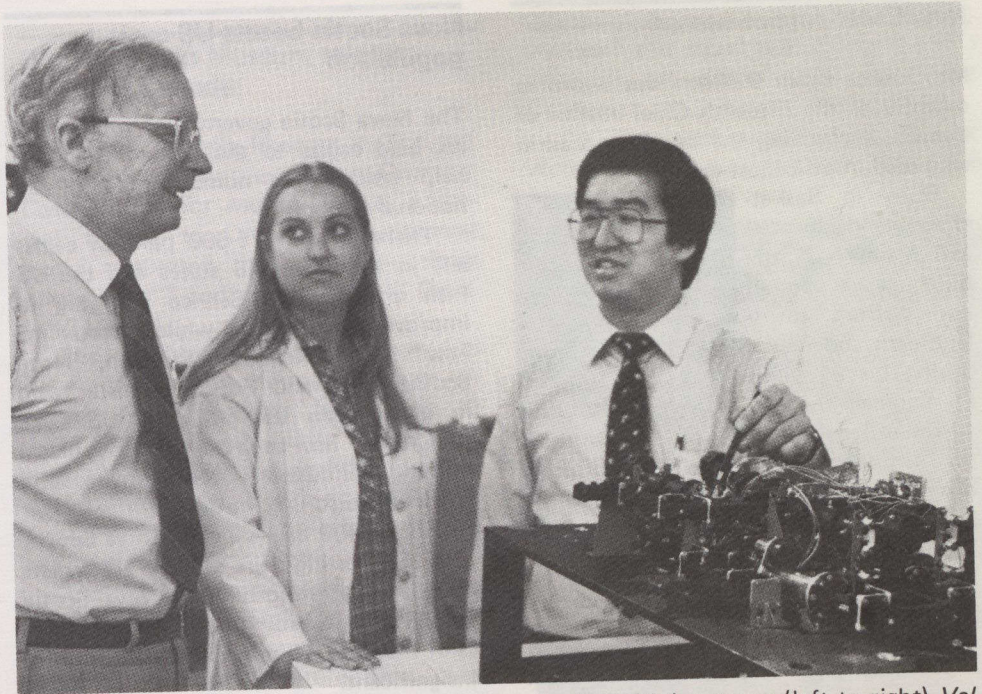
The company is Com Dev Ltd., located in Cambridge, an hour's drive from Toronto. The product is a multiplexer.

There is no earthly reason for a multiplexer — but there is a heavenly one. This clever piece of microwave hardware is used in satellites. It is an indispensable gadget, implanted in the satellite, that makes a certain kind of TV signal possible — usually cable TV. However, it also has application in the telephone industry.

The multiplexer weighs about 13.6 kilograms and has a selling price ranging from \$0.5 million to \$2 million.

In simplified terms, what the multiplexer does is receive the various signals beamed to the satellite from the various broadcasting companies. After a series of amplification processes, the signals are combined into a single beam and directed down to the cable stations on earth. Each of these stations takes its own channel from the multiple signals beam, and then distributes it to its subscribers.

The design, manufacture, testing and selling of multiplexers has led to rapid corporate growth for Com Dev and generated handsome profits as well. In 1981 sales revenues were \$5 million; by the end of 1983 it's expected



Admiring the inner workings of one of Com Dev's multiplexers are (left to right) Val O'Donovan, president of Com Dev, technologist Adeline Stutt and engineer Robert Tong.

to reach \$17 million.

Fifty per cent of the company's staff are engineers or technologists. And most of the balance are skilled tool-makers and machinists.

"We have to invest in such items as a computer-controlled Electron Discharge Machine which permits us to machine parts to accuracies of within one micron," says president Val O'Donovan. "Then there are the necessary expansions to the plant to be considered. In this connection we were helped enormously by an Ontario government grant.

"The chief benefit of this grant is

that it allowed us to take our minds off the cost of an expansion of the plant and concentrate our funds on more up-to-date machinery. As long as we can do this we'll be able to maintain our high design quality which, so far, has made it possible for us to sell 90 per cent of our products to the United States and most of the balance to England, Italy and Germany.

"In fact, it's because of this quality that 75 per cent of all multiplexers being built for communications satellites have been built by Com Dev."

(From Ontario Business News.)

Dial 900 to save a lobster

Canadians will be able to save a lobster, vote for favourite rock videos, help choose baseball's all star players and register their reaction to new products or issues by telephone, beginning July 1.

These are several applications of the 900 service — named after the area code before the number dialed. It is already in service throughout the United States, and domestic telephone companies are now gearing up to provide it across Canada.

Bell Canada, a subsidiary of Bell Canada Enterprises Inc. of Montreal, has applied to its regulator for approval of a two-year trial in two phases. Other telephone company members of the Telecom Canada consortium are expected to follow suit shortly.

If the application is approved, Bell customers will be permitted access to the Dial-It 900 service offered by American Telephone and Telegraph Co. of New York in the United States beginning July 1. Bell proposes to offer the same service for domestic customers beginning Oct. 1.

"Anyone wanting to gauge a response could use 900 service," said Bell spokesman Susanna Cluff-Clyburne. Sponsors that take a number are charged a one-time installation fee — not yet set by Bell — and calling charges can either be assumed by the sponsor or billed to the person calling.

Bell will charge 50 cents for the first minute or less and 35 cents for each additional minute for a call to a 900 number, the same rate that AT and T charges.

Canadian wins US chess event

A relatively unknown Canadian master recently topped 17 higher-ranked grandmasters and walked away with the \$10 000 first prize in the New York Open Chess Tournament.

International master Kevin Spraggett, 29, of Montreal defeated Roman Dzindzichashvili of Queens, New York, the co-US champion, in the eighth and final round of the four-day tournament that attracted 1014 players vying for \$105 000 in prizes.

Mr. Spraggett took the lead after seven rounds. Officials said it was unusual for an event the strength and size of the New York Open to produce a sole winner. Last year's event ended in a five-way tie for first place.